

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP 2004/009051

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl.⁷ B41J2/175

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl.⁷ B41J2/175

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 Japanese Utility Model Gazette 1922-1996, Japanese Publication of Unexamined Utility Model Applications 1971-2004, Japanese Registered Utility Model Gazette 1994-2004, Japanese Gazette Containing the Utility Model 1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2001-301187 A (Seiko Epson Corporation)	1, 2, 5, 12-14, 17, 21, 22
A	2001.10.30, claims, column 6, lines 13-column 14, lines 19, Figs 1-14 (Family: None)	3, 4, 15, 16, 18

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

25, 11, 2004

Date of mailing of the international search report

14.12.2004

Name and mailing address of the ISA/JP

Japan Patent Office

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see extra sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
claims 1-5, 12-18, 21-22

Remark on Protest

☐

The additional search fees were accompanied by the applicant's protest.

☒

No protest accompanied the payment of additional search fees.

The "special technical features" of claims 1-5,12-18,21-22 relates to [A liquid container comprising: liquid accommodating portion for accommodating the liquid; and an air flow path for discharging air from the liquid accommodating portion; wherein the air flow path includes an entrance flow path portion that is connected to the liquid accommodating portion, and a continued flow path portion that continues from the entrance flow path portion; and the continued flow path portion is arranged to extend in an upper diagonal direction with respect to a reference plane corresponding to a liquid accommodating portion at a standstill state],

While the "special technical features" of claims 6-11,19-20,23-24 relates to [A liquid container comprising: a container main body that forms a liquid accommodating portion for accommodating the liquid; a flexible film member that is attached to the container main body and is adapted to seal an opening of the liquid accommodating portion; and an air flow path that is formed at the container main body and is adapted to discharge air from the liquid accommodating portion; wherein the air flow path includes a flow path portion that does not have a wall formed by the flexible film member],

the "special technical features" of claims 25-37 relates to [The sub tank comprising: a negative pressure generation unit that includes a flexible film member that is disposed on at least one side of the sub tank, and an elastic member that forces the flexible film member outward with respect to the sub tank, the negative pressure generation unit being adapted to expand and contract in response to the supply and discharge of the liquid, and generate a negative pressure within the sub tank],

the "special technical features" of claims 38-45 relates to [An amount of liquid that is consumed from the sub tank is detected and a liquid supply operation of supplying liquid to the sub tank is performed according to the detected liquid consumption amount],

and the "special technical features" of claims 46-54 relates to [A nozzle restoration operation is performed in which the sub tank is opened by the open-close unit when an amount of air within the sub tank is greater than or equal to a first predetermined amount, or when an amount of liquid within the sub tank is less than a second predetermined amount, and the sub tank is not opened when the amount of air within the sub tank is less than the first predetermined amount and the amount of liquid within the sub tank is greater than or equal to the second predetermined amount].